WM-EX402/EX404/EX405/EX406

SERVICE MANUAL

AEP Model
E Model

Photo : WM-EX404

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MF-WMFX483-147

SPECIFICATIONS

Tape section

Frequency response (Dolby NR off)
Playback: 40 - 14,000 Hz

Output
Headphones ∩ jack
Load impedance 8 - 300 ohms

General

Power requirements
3 V
Two R6 (size AA) batteries
(negative ground)

Dimensions (w/h/d)
Approx. 115.5 × 83.5 × 32.5 mm
(4 5/8 × 3 3/8 × 1 5/16 inches) incl.
projecting parts and controls

Mass
Approx. 135 g (4.8 oz) / Approx.
215 g (7.6 oz) incl. batteries and
a cassette

Supplied accessories
Stereo headphones or Stereo
earphones with remote
control (1) (EX406 only)
Stereo headphones or Stereo
earphones (1) (EX402/EX404/
EX405 only)
Belt clip (1)

Design and specifications are subject to change without notice.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CASSETTE PLAYER

MICROFILM

SONY®

TABLE OF CONTENTS

1. GENERAL

Getting Started 4
Operating the Walkman 4
Additional Information 4

2. DISASSEMBLY

2-1. Cabinet (Rear) Assy 5
2-2. Main Board 6
2-3. Mechanism Deck 6
2-4. Cassette Lid Sub Assy 7
2-5. Display Board 7

3. MECHANICAL ADJUSTMENTS 8

4. ELECTRICAL ADJUSTMENTS 8

5. DIAGRAMS

5-1. Printed Wiring Boards 9
5-2. Schematic Diagram 11

6. EXPLODED VIEWS

6-1. Cassette Lid Section 16
6-2. Cabinet Section 17
6-3. Mechanism Deck Section 18

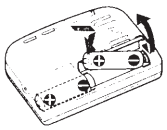
7. ELECTRICAL PARTS LIST 19

SECTION 1
GENERAL

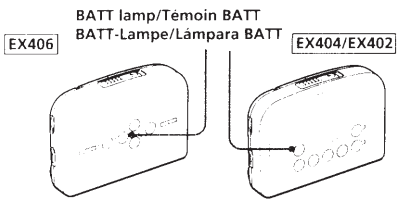
This section extracted from instruction manual.

A

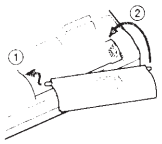
ⓐ



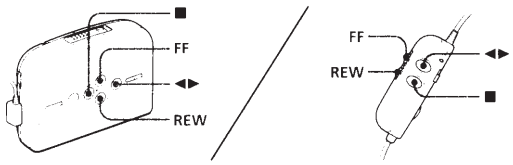
ⓑ

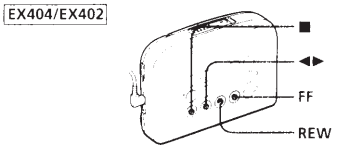


ⓒ



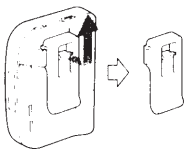
ⓑ



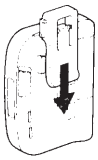


B

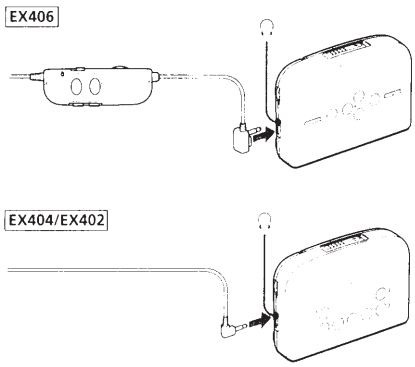
ⓐ



ⓑ

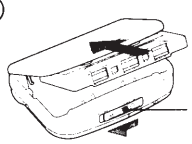


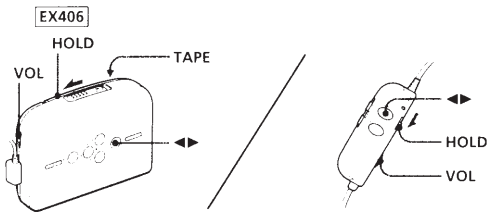
C

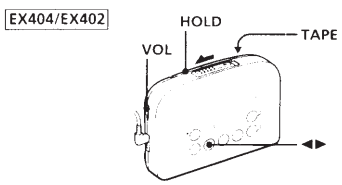


D

ⓐ

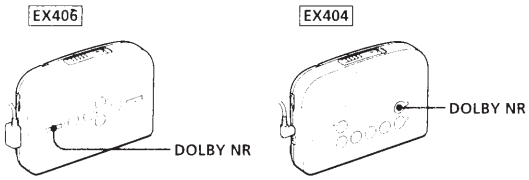




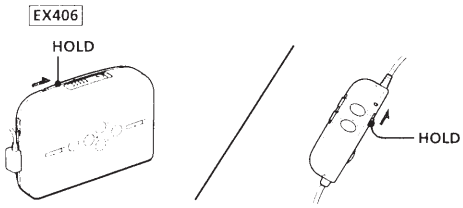


E

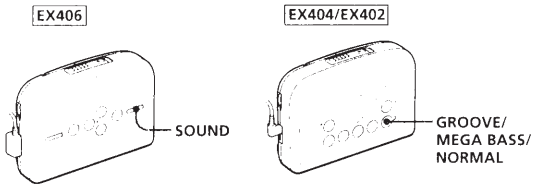
ⓐ



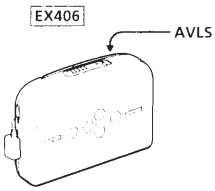
ⓑ



ⓒ



ⓓ



▶Getting Started

Preparing a Power Source (see Fig. A-ⓐ)

Slide and open the battery compartment lid, and insert two R6 (size AA) dry batteries with correct polarity.

When to replace the batteries (see Fig. A-ⓑ)
Replace the batteries when the BATT lamp dims.

Battery life

(Approx. hours)		(EIAJ*)
	Sony alkaline LR6 (SG)	Sony R6P (SR)
Tape playback	24	7.5

* Measured value by the standard of EIAJ (Electric Industries Association of Japan). (Using a Sony HF series cassette tape)

Note
- The battery life may shorten depending on the operation of the unit.

For maximum performance we recommend that you use alkaline batteries.

If the battery compartment lid comes off
Attach it as shown (see Fig. A-ⓒ).

To use the belt clip

With the supplied belt clip, you can wear your Walkman on a belt for convenient use.

To remove the belt clip (see Fig. B-ⓐ)

To attach the belt clip (see Fig. B-ⓑ)

Connecting the Headphones/ Earphones (see Fig. C)

1 Connect the headphones/ earphones to ∩.

2 Wear the "L" marked side to the left ear and the "R" marked side to the right ear.
If the earphones do not fit to your ears or the sound is unbalanced, turn round the earphones a little to fit to your ears firmly.

▶Operating the Walkman

Playing a Tape (see Fig. D-ⓐ)

1 Open the cassette holder and insert a cassette.

2 Set the TAPE selector to select NORM or CrO2/METAL to match the tape type.

3 Make sure the HOLD function is turned off.
If it is on, slide the HOLD switch to turn it off.

4 Press ◀▶ (play) to start playing then adjust the volume.

When adjusting the volume on the Walkman (EX406 only)
Set the VOL control on the remote control at maximum.

When adjusting the volume on the remote control (EX406 only)
Set the VOL control on the Walkman slightly above the appropriate level.

To	Press (see Fig. D-ⓑ)
Play the other side	◀▶ (play) during playback
Stop playback	■
Fast forward	FF during stop
Rewind	REW during stop
Play the same side from the beginning (Rewind Auto Play function)	REW during playback
Play the other side from the beginning (Skip Reverse function)	FF during playback

Using Other Functions

To play a tape recorded with Dolby* NR system (EX406/EX404 only) (see Fig. E-ⓐ)

Set DOLBY NR to ON.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

To lock the controls (see Fig. E-ⓑ)

Set the HOLD switch to the direction of the arrow to lock the controls.

To emphasize bass sound (see Fig. E-ⓒ)

To emphasize deep bass sound, set the SOUND or GROOVE/MEGA BASS/NORMAL switch to MEGA BASS. To emphasize deeper bass sound, set the switch to GROOVE.

Notes
- If the sound is distorted when set to GROOVE, set to MEGA BASS or NORMAL.
- Bass emphasis may not show great effect if the volume is turned up too high.

To protect your hearing—AVLS (Automatic Volume Limiter System) function (see Fig. E-ⓓ)

Set AVLS (Automatic Volume Limiter System) to LIMIT. The maximum volume is kept down to protect your ears, even if you turn the volume up.
To cancel the AVLS function, set AVLS to NORM.

Note
- If the sound is distorted when you listen to the bass-boosted sound with the AVLS, turn down the volume.

▶Additional Information

Precautions

On batteries
- Do not charge a dry battery.
- Do not carry the dry batteries with coins or other metallic objects. It can generate heat if the positive and negative terminals of the batteries are accidentally contacted by a metallic object.
- When you do not use the Walkman for a long time, remove the battery to avoid any damage caused by battery leakage and subsequent corrosion.

On the unit
- Do not drop the unit or give a shock to the unit, or it may cause a malfunction.
- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain, mechanical shock, or in a car with its windows closed.
- If the unit has not been used for long, set it in the playback mode and warm it up for a few minutes before inserting a tape.

On tapes longer than 90 minutes
We do not recommend the use of tapes longer than 90 minutes except for a long continuous playback. They are very thin and tend to be stretched easily.

On the remote control (EX406 only)
Use the supplied remote control only with this unit.

On headphones/earphones
Road safety
Do not use headphones/earphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headphones/earphones at high volume while walking, especially at pedestrian crossings.
You should exercise extreme caution or discontinue use in potentially hazardous situations.

Preventing hearing damage
Do not use headphones/earphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.

Caring for others
Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

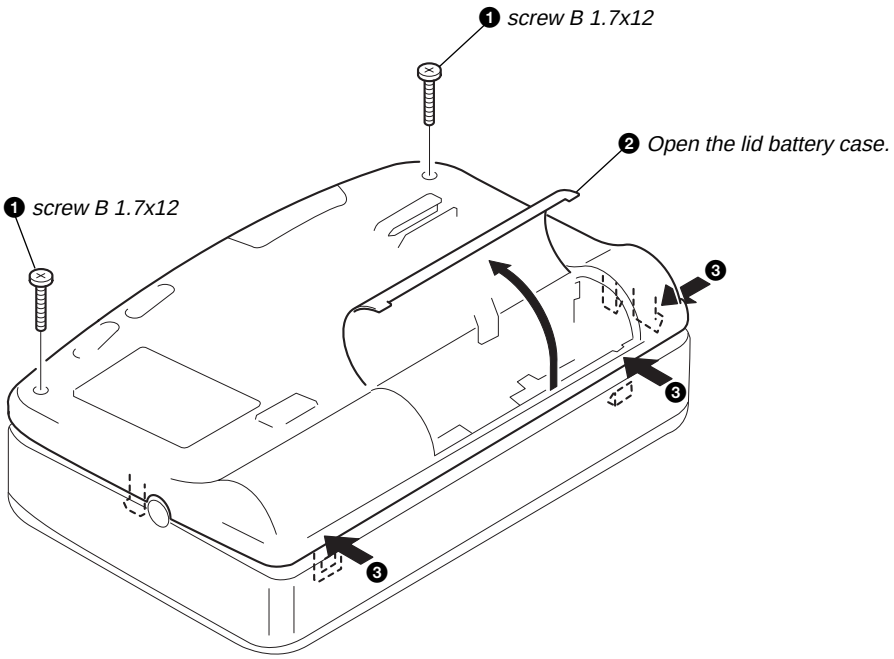
SECTION 2
DISASSEMBLY

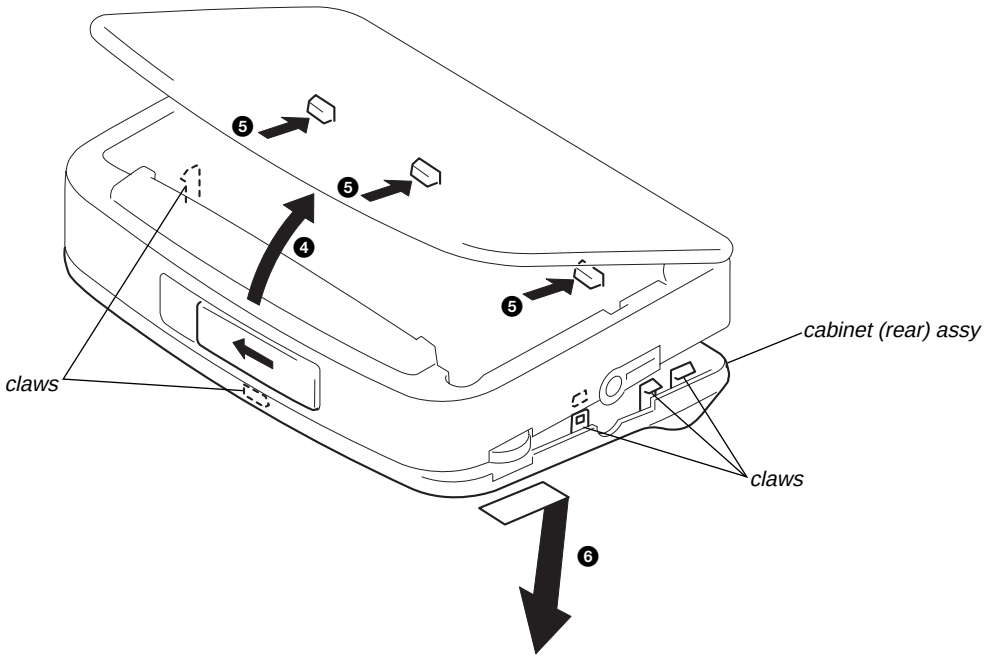
• The equipment can be removed using the following procedure.

Set ➡ Cabinet (rear) assy ➡ Main board ➡ Mechanism deck
Cassette lid sub assy ➡ Display board

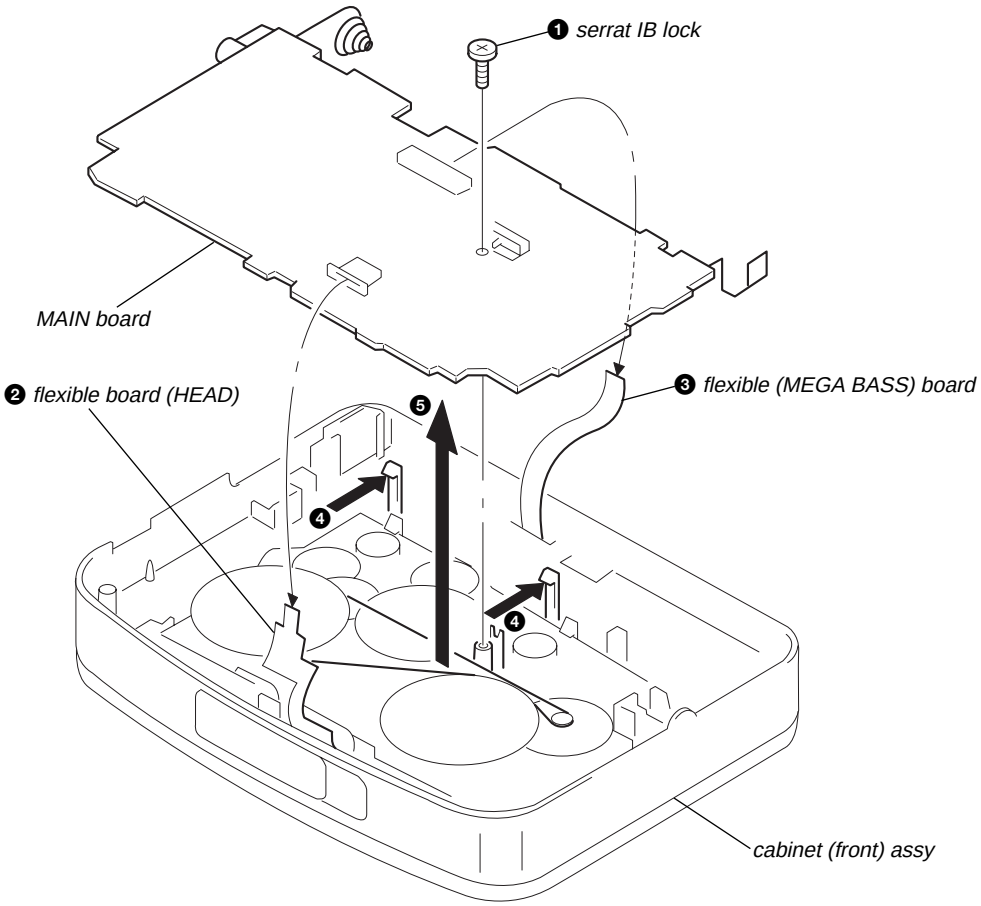
Note : Follow the disassembly procedure in the numerical order given.

2-1. CABINET (REAR) ASSY

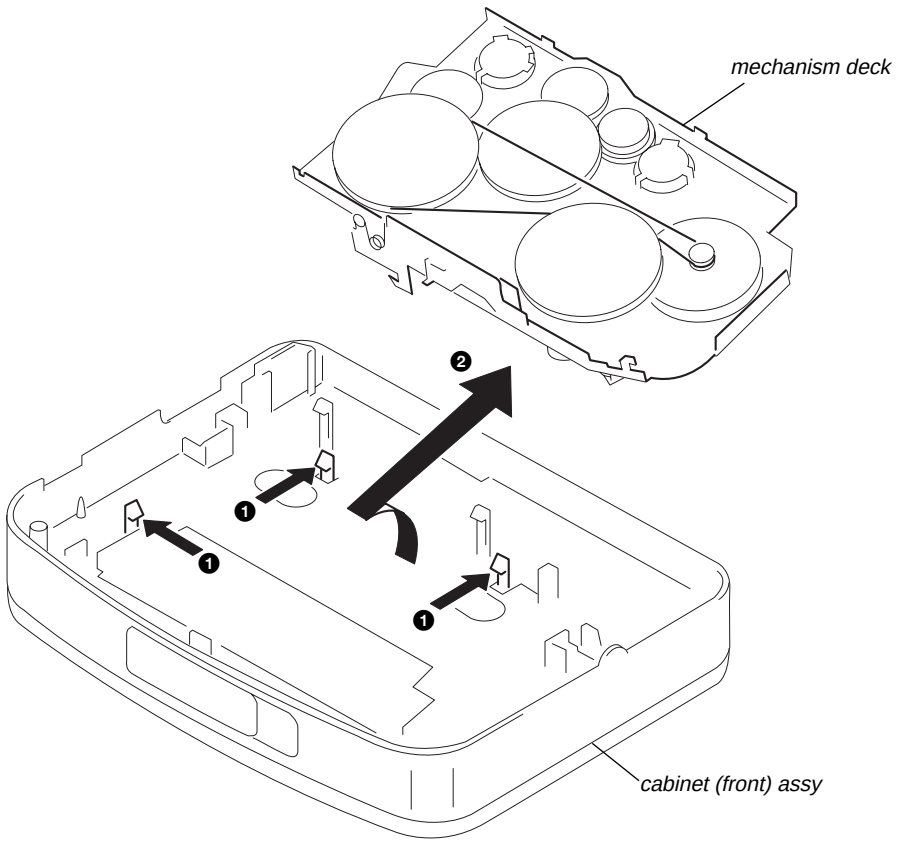




2-2. MAIN BOARD



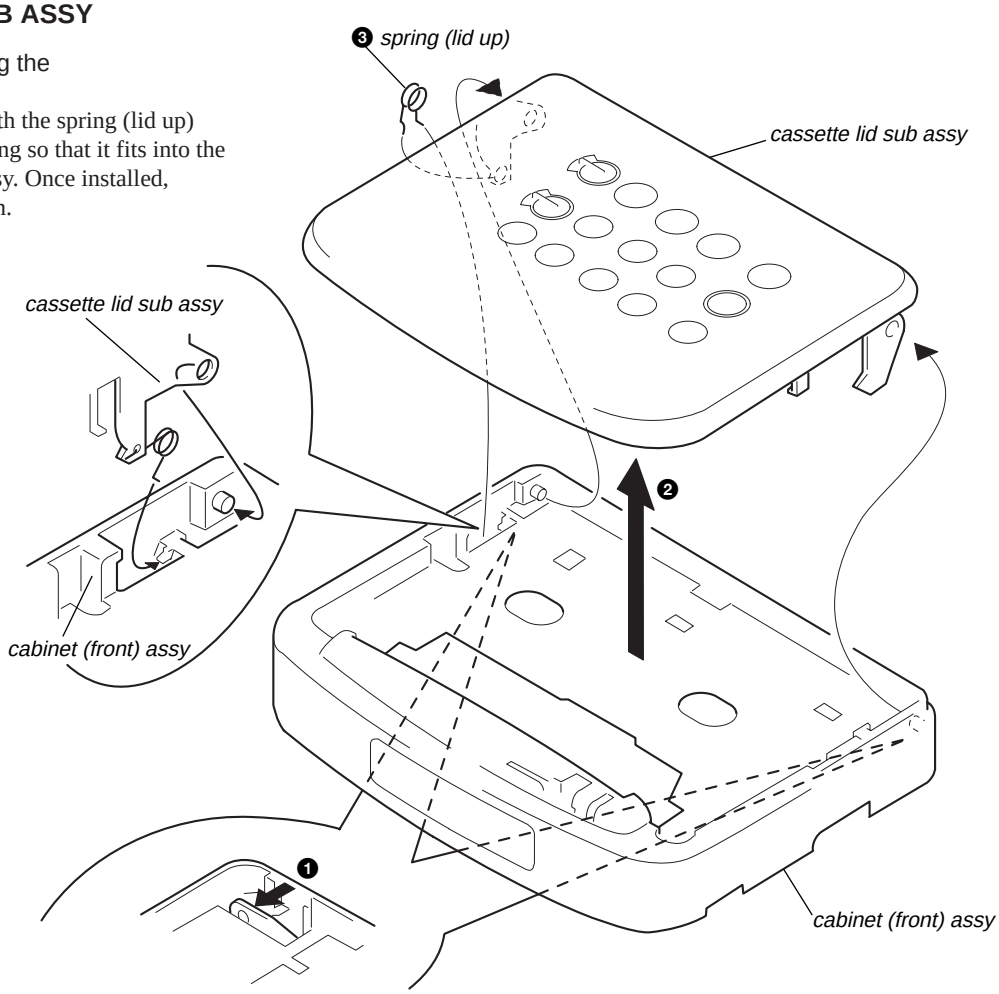
2-3. MACHANISM DECK



2-4. CASSETTE LID SUB ASSY

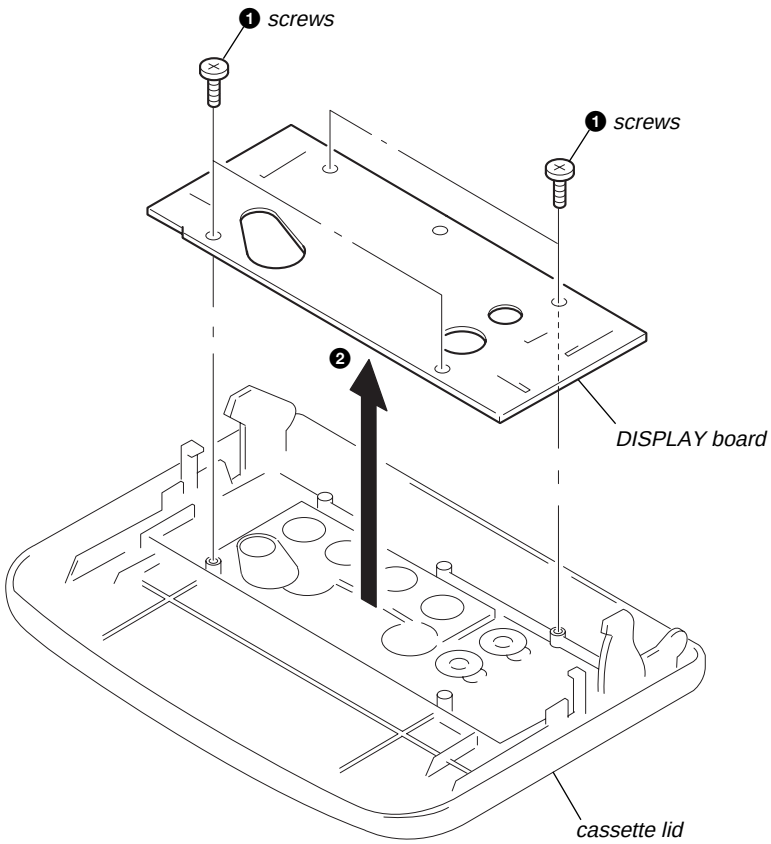
- Use caution when installing the cassette holder assy

  Install the cassette holder with the spring (lid up) as shown below in the drawing so that it fits into the holes on the cabinet front assy. Once installed, fit the left and right pieces on.



- Press on the left & right clips from the rear of the cabinet (front) assy. and remove the boss.

2-5. DISPLAY BOARD



SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   playback head pinch roller
   capstan rubber belt
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (2.5 V) unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	20 – 42 g • cm (0.28 – 0.58 oz • inch)
FWD back tension		less than 2 g • cm (less than 0.03 oz • inch)
REV	CQ-102RC	20 – 42 g • cm (0.28 – 0.58 oz • inch)
REV back tension		less than 2 g • cm (less than 0.03 oz • inch)
FF, REW	CQ-201B	more than 50 g • cm (more than 0.69 oz • inch)

SECTION 4
ELECTRICAL ADJUSTMENTS

PRECAUTION

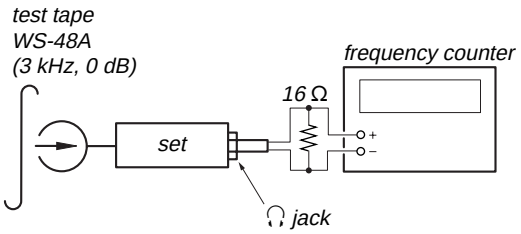
- Supplied voltage : 2.5 V
- Switches and control position
  TAPE switch : NORM
  GROOVE/MEGA BASS/
  NORMAL switch : NORMAL (EX402/EX404)
  SOUND switch : NORMAL (EX405/EX406)
  VOL control : maximum
  AVLS switch : NORM
  DOLBY NR switch : OFF (Except EX402)

Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

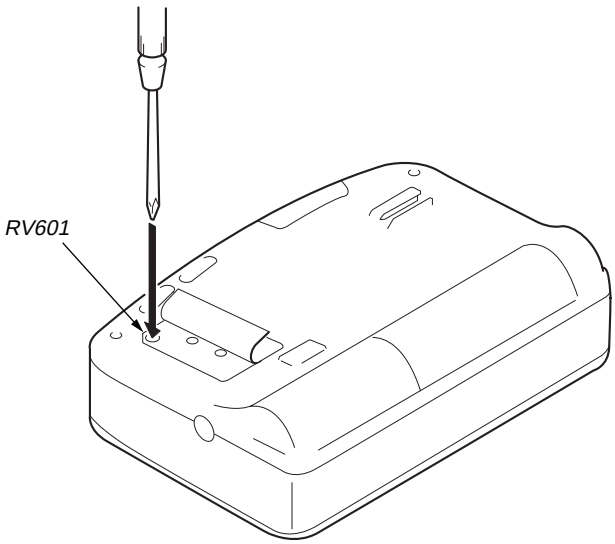
Tape Speed Adjustment

Procedure :



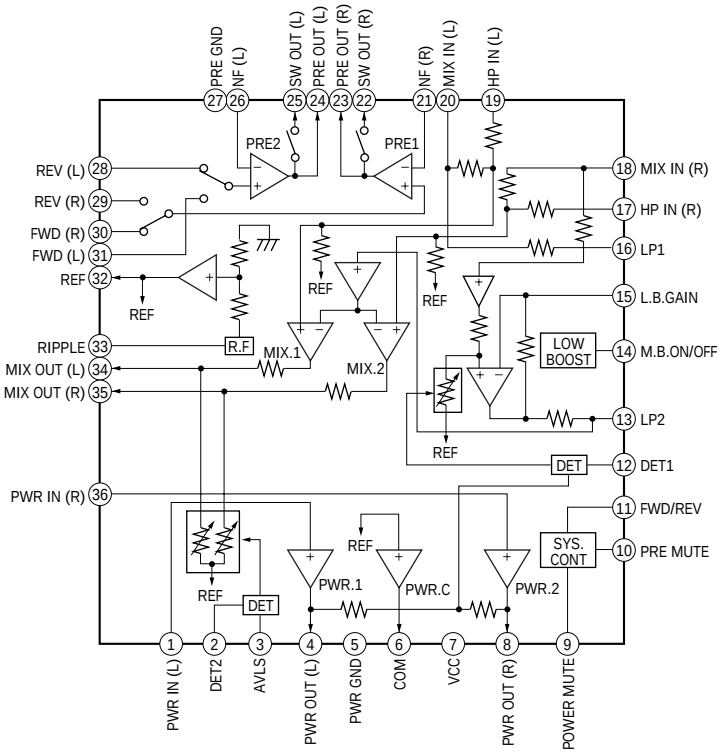
1. Playback WS-48A (tape center part) in the REV state and adjust RV601 so that the frequency counter reading becomes 3,000 Hz.
2. Playback WS-48A (tape center part) in the FWD state. Check that frequency counter reading is within ± 1.5% of the reading of step 1.

Adjustment Location :

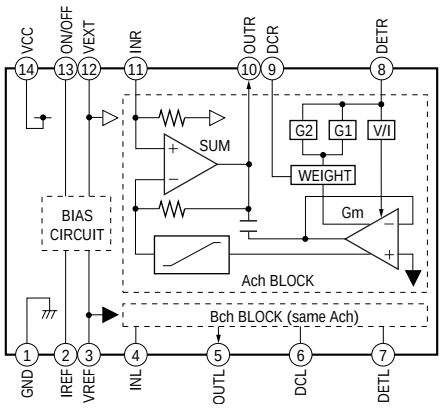


• IC Block Diagrams

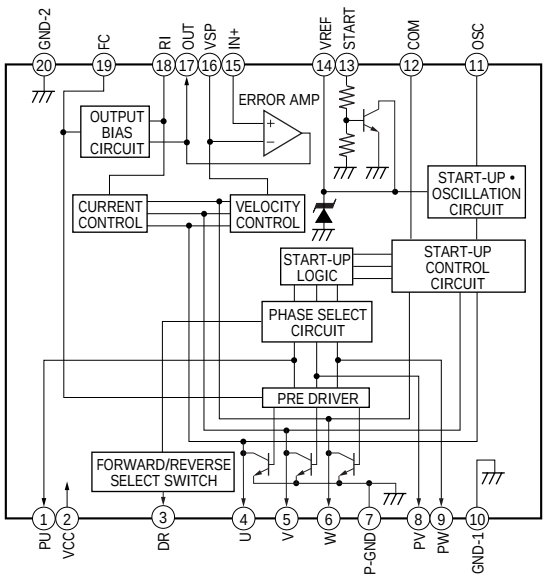
IC301 LA4585M-TLM



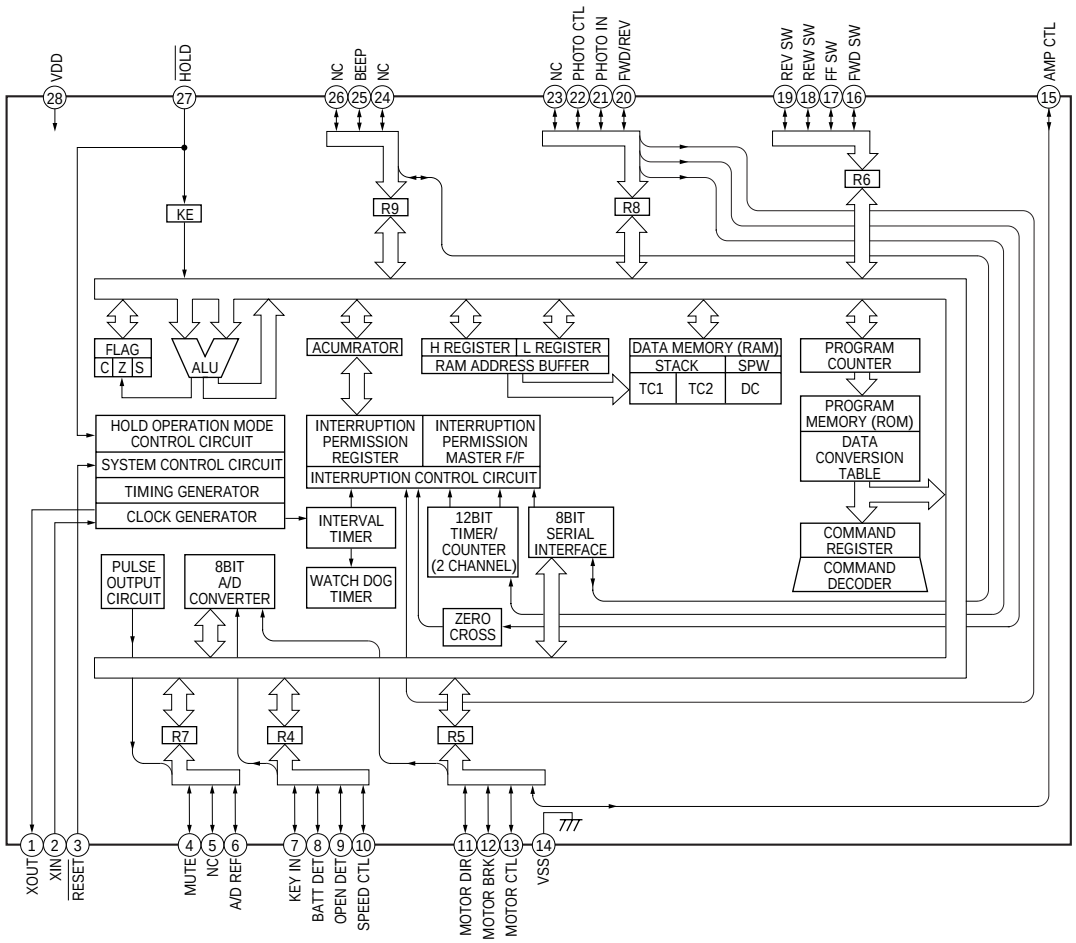
IC302 NJM2185AV-TE2



IC601 MM1370XVBE



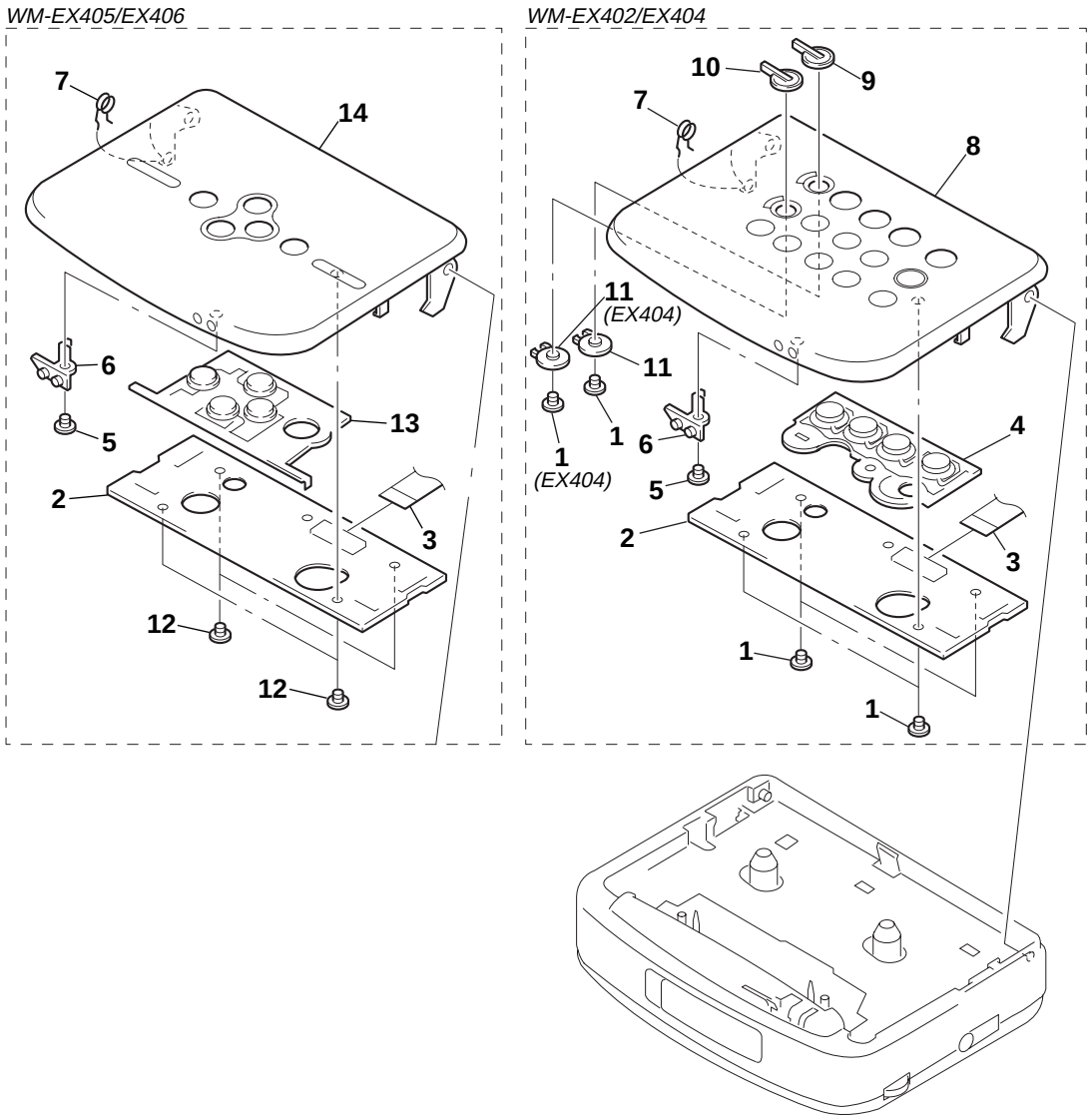
IC701 TMP47C243LM-FV81CS



SECTION 6
EXPLODED VIEWS

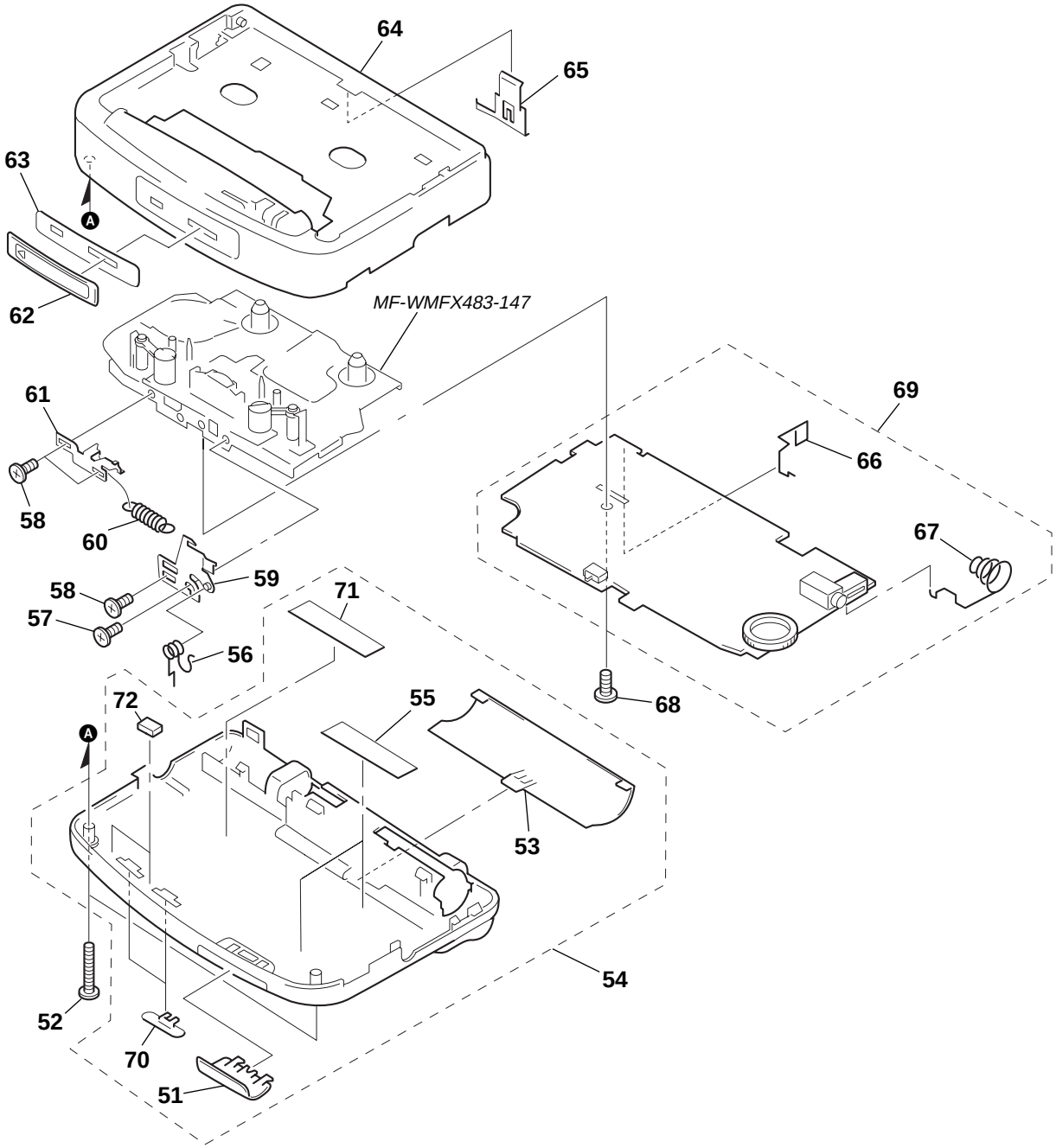
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials are given in the last of this parts list.
- Abbreviation
  EE : East European model
  FR : France model

6-1. CASSETTE LID SECTION



Ref. No.	Part No.	Description	Remark
1	3-008-298-11	SCREW (EX402/EX404)	
* 2	1-667-932-11	DISPLAY BOARD	
3	1-667-927-11	FLEXIBLE (MEGA BASS) BOARD	
4	3-019-493-01	BUTTON (CONTROL) (EX402/EX404)	
5	3-318-382-61	SCREW (1.7X2.5), TAPPING	
6	3-019-506-01	LOCKER, OPEN	
7	3-025-276-01	SPRING (LID UP)	
8	X-3374-790-1	LID SUB ASSY, CASSETTE (EX402)	
8	X-3374-793-1	LID SUB ASSY, CASSETTE (EX404)	
9	3-019-495-01	KNOB (GROOVE/MEGA BASS/NORMAL) (EX402/EX404)	
10	3-019-495-01	KNOB (DOLBY NR) (EX404)	
11	3-019-504-01	JOINTER (EX402/EX404)	
12	3-008-298-01	SCREW (EX405/EX406)	
13	3-019-488-01	BUTTON (CONTROL) (EX405/EX406)	
14	X-3374-796-1	LID SUB ASSY, CASSETTE (EX406)	
14	X-3375-830-1	LID SUB ASSY, CASSETTE (SILVER) (EX405)	
14	X-3375-831-1	LID SUB ASSY, CASSETTE (BLUE) (EX405)	

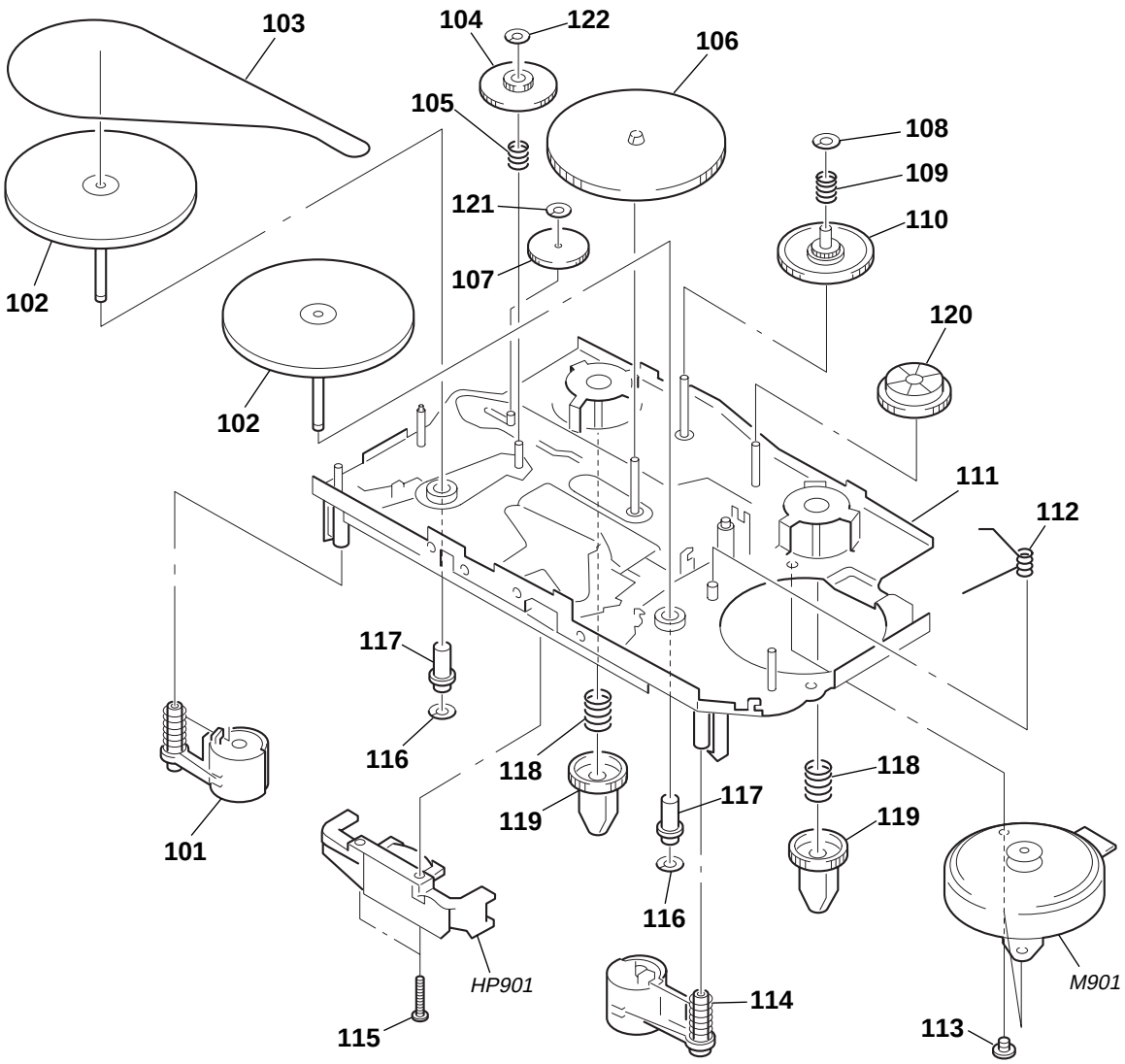
6-2. CABINET SECTION



Ref. No.	Part No.	Description	Remark
51	3-020-510-01	KNOB (HOLD)	
52	3-318-203-51	SCREW (B1.7X12), TAPPING	
53	3-020-509-01	LID, BATTERY CASE (EX402)	
53	3-020-509-11	LID, BATTERY CASE (EX404)	
53	3-020-509-21	LID, BATTERY CASE (EX405/EX406)	
54	X-3374-792-1	CABINET (REAR) ASSY (EX402)	
54	X-3374-795-1	CABINET (REAR) ASSY (EX404)	
54	X-3374-798-1	CABINET (REAR) ASSY (EX405/EX406)	
55	3-019-503-01	SHEET (CABINET REAR)	
56	3-022-857-01	SPRING (OPEN)	
57	3-349-825-31	SCREW	
58	3-703-816-07	SCREW (M1.4), SPECIAL HEAD	
59	3-019-421-01	LEVER, OPEN	
60	3-022-856-01	SPRING (KNOB), TENSION	
61	3-019-422-01	JOINT	
62	3-019-514-01	KNOB (OPEN)	
63	3-025-230-01	SPACER (KNOB OPEN)	

Ref. No.	Part No.	Description	Remark
64	3-020-507-01	CABINET (FRONT) (EX402)	
64	3-020-507-11	CABINET (FRONT) (EX404)	
64	3-020-507-22	CABINET (FRONT) (EX405/EX406)	
65	3-364-675-01	SPRING (CASSETTE)	
66	3-020-511-01	TERMINAL (+), BATTERY	
67	3-020-512-01	TERMINAL (-), BATTERY	
68	3-010-838-22	LOCK, SERRAT IB	
69	A-3021-016-A	MAIN BOARD, COMPLETE (EX402:AEP,EE)	
69	A-3021-018-A	MAIN BOARD, COMPLETE (EX404)	
69	A-3021-019-A	MAIN BOARD, COMPLETE (EX405:FR)	
69	A-3021-020-A	MAIN BOARD, COMPLETE (EX405:AEP/EX406)	
69	A-3021-099-A	MAIN BOARD, COMPLETE (EX402:FR)	
70	3-020-516-01	KNOB (TAPE SEL) (EX402)	
70	3-020-516-11	KNOB (TAPE SEL) (EX404)	
70	3-020-516-21	KNOB (TAPE SEL) (EX405/EX406)	
71	3-025-599-01	CUSHION (H)	
72	3-025-735-01	CUSHION (S)	

6-3. MECHANISM DECK SECTION (MF-WMFX483-147)



Ref. No.	Part No.	Description	Remark
101	X-3375-020-1	LEVER ASSY (N-F), PINCH	
102	X-3372-558-1	WHEEL ASSY (SP), CAPSTAN	
103	3-354-868-11	BELT	
104	3-021-950-01	GEAR (DF)	
105	3-021-982-01	SPRING (MODE)	
106	X-3375-024-1	CLUTCH ASSY (F)	
107	3-021-951-01	GEAR (CAM)	
108	3-348-953-21	WASHER	
109	3-021-979-01	SPRING (UDF)	
110	3-021-949-01	GEAR (BF)	
111	X-3375-022-1	CHASSIS ASSY (F)	
112	3-021-974-01	SPRING (HEAD BASE)	

Ref. No.	Part No.	Description	Remark
113	3-703-816-31	SCREW (M1.4), SPECIAL HEAD	
114	X-3375-021-1	LEVER ASSY (R-F), PINCH	
115	3-703-816-73	SCREW (M1.4), SPECIAL HEAD	
116	3-921-797-01	WASHER	
117	3-921-003-01	BEARING	
118	3-022-100-01	SPRING (B.T.), COMPRESSION	
119	3-024-223-01	GEAR (REEL-2)	
120	X-3375-268-1	GEAR (AF-SV) ASSY	
121	3-338-647-31	WASHER (1.0-2.5)	
122	3-026-340-01	WASHER	
HP901	1-500-516-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-763-073-11	MOTOR	

SECTION 7
ELECTRICAL PARTS LIST

DISPLAY **MAIN**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

- Abbreviation
  EE : East European model
  FR : France model

Ref. No.	Part No.	Description			Remark
*	1-667-932-11	DISPLAY BOARD			
		**********			
		< CONNECTOR >			
CN702	1-766-585-11	CONNECTOR, FPC (ZIF) 8P			
		< DIODE >			
D704	8-719-051-01	LED CL-170HR-CD-T (BATT)			
		< JUMPER RESISTOR >			
JC20	1-216-864-11	METAL CHIP	0	5%	1/16W
JC21	1-216-864-11	METAL CHIP	0	5%	1/16W
JC22	1-216-864-11	METAL CHIP	0	5%	1/16W
JC23	1-216-864-11	METAL CHIP	0	5%	1/16W
		< RESISTOR >			
R709	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R710	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R712	1-218-845-11	RES,CHIP	820	0.50%	1/16W
R713	1-218-847-11	RES,CHIP	1K	0.50%	1/16W
R714	1-218-849-11	RES,CHIP	1.2K	0.50%	1/16W
		< SWITCH >			
S305	1-692-605-31	SWITCH, SLIDE (GROOVE/MEGA BASS/ NORMAL) (EX402/EX404)			
S305	1-692-605-31	SWITCH, SLIDE (SOUND) (EX405/EX406)			
S306	1-572-922-11	SWITCH, SLIDE (DOLBY NR) (EXCEPT EX402)			
S702	1-771-138-41	SWITCH, KEY BOARD (■)			
S703	1-771-138-41	SWITCH, KEY BOARD (◄►)			
S704	1-771-138-41	SWITCH, KEY BOARD (FF)			
S705	1-771-138-41	SWITCH, KEY BOARD (REW)			
**********					
	A-3021-016-A	MAIN BOARD, COMPLETE (EX402:AEP,EE)			
	A-3021-018-A	MAIN BOARD, COMPLETE (EX404)			
	A-3021-019-A	MAIN BOARD, COMPLETE (EX405:FR)			
	A-3021-020-A	MAIN BOARD, COMPLETE (EX405:AEP/EX406)			
	A-3021-099-A	MAIN BOARD, COMPLETE (EX402:FR)			
		**********			
	3-020-511-01	TERMINAL (+), BATTERY			
	3-020-512-01	TERMINAL (-), BATTERY			
		< CAPACITOR >			
C101	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C104	1-126-153-11	ELECT	22uF	20%	6.3V
C105	1-115-156-11	CERAMIC CHIP	1uF		10V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-115-156-11	CERAMIC CHIP	1uF		10V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-115-156-11	CERAMIC CHIP	1uF		10V (EXCEPT EX402)
C152	1-164-505-11	CERAMIC CHIP	2.2uF		16V (EXCEPT EX402)
C153	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V (EXCEPT EX402)
C201	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C202	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C203	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C204	1-126-153-11	ELECT	22uF	20%	6.3V
C205	1-115-156-11	CERAMIC CHIP	1uF		10V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-115-156-11	CERAMIC CHIP	1uF		10V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C251	1-115-156-11	CERAMIC CHIP	1uF		10V (EXCEPT EX402)
C252	1-164-505-11	CERAMIC CHIP	2.2uF		16V (EXCEPT EX402)
C253	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V (EXCEPT EX402)
C301	1-115-156-11	CERAMIC CHIP	1uF		10V
C302	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C303	1-126-153-11	ELECT	22uF	20%	6.3V
C304	1-113-619-11	CERAMIC CHIP	0.47uF		10V
C305	1-115-156-11	CERAMIC CHIP	1uF		10V
C306	1-124-433-00	ELECT	100uF	20%	4V
C307	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C308	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C309	1-126-162-11	ELECT	3.3uF	20%	50V
C310	1-124-257-00	ELECT	2.2uF	20%	50V
C311	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C312	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C313	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C314	1-124-259-11	ELECT	4.7uF	20%	16V
C315	1-113-619-11	CERAMIC CHIP	0.47uF		10V
C316	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C317	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C318	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C351	1-126-157-11	ELECT	10uF	20%	16V (EXCEPT EX402)

MAIN

Ref. No.	Part No.	Description			Remark
C352	1-126-157-11	ELECT	10uF	20%	16V (EXCEPT EX402)
C353	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (EXCEPT EX402)
C354	1-113-619-11	CERAMIC CHIP	0.47uF		10V (EXCEPT EX402)
C601	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C602	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C603	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C604	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C605	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C606	1-124-434-00	ELECT	220uF	20%	4V
C607	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C608	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C609	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C701	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C702	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C703	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C704	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C705	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C707	1-124-434-00	ELECT	220uF	20%	4V
C708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN301	1-766-819-11	CONNECTOR, FPC (ZIF) 6P			
CN701	1-766-585-11	CONNECTOR, FPC (ZIF) 8P			
		< DIODE >			
D301	8-719-422-46	DIODE MA8056			
		< FERRITE BEAD >			
FB301	1-414-385-11	INDUCTOR, FERRITE BEAD			
		< IC >			
IC301	8-759-332-69	IC LA4585M-TLM			
IC302	8-759-488-80	IC NJM2185AV-TE2 (EXCEPT EX402)			
IC601	8-759-526-37	IC MM1370XVBE			
IC701	8-759-526-56	IC TMP47C243LM-FV81CS			
IC703	8-759-296-60	IC PST9018NL			
		< JACK >			
J301	1-580-680-31	JACK (🎧)			
		< JUMPER RESISTOR >			
JC1	1-216-864-11	METAL CHIP	0	5%	1/16W
JC2	1-216-864-11	METAL CHIP	0	5%	1/16W (EX402)
JC3	1-216-864-11	METAL CHIP	0	5%	1/16W (EX402)
JC4	1-216-295-00	SHORT	0		
JC5	1-216-295-00	SHORT	0 (EXCEPT EX402)		
JC6	1-216-864-11	METAL CHIP	0	5%	1/16W
JC7	1-216-864-11	METAL CHIP	0	5%	1/16W
JC8	1-216-864-11	METAL CHIP	0	5%	1/16W
JC9	1-216-295-00	SHORT	0		
JC10	1-216-864-11	METAL CHIP	0	5%	1/16W
JC11	1-216-295-00	SHORT	0		
		< COIL >			
L301	1-410-997-31	INDUCTOR CHIP	2.2uH		
		< PHOTO REFLECTOR >			
PH701	8-719-988-23	PHOTO REFLECTOR	PR-11-C-TL		
		< TRANSISTOR >			
Q101	8-729-421-26	TRANSISTOR	UN5216QRS		
Q201	8-729-421-26	TRANSISTOR	UN5216QRS		
Q303	8-729-807-86	TRANSISTOR	2SB1295-UL5		
Q304	8-729-230-60	TRANSISTOR	2SA1586-YG		
Q602	8-729-141-48	TRANSISTOR	2SB624-BV345		
Q603	8-729-141-48	TRANSISTOR	2SB624-BV345		
Q604	8-729-141-48	TRANSISTOR	2SB624-BV345		
Q605	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q606	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q607	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q608	8-729-421-26	TRANSISTOR	UN5216QRS		
Q609	8-729-421-26	TRANSISTOR	UN5216QRS		
Q610	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q701	8-729-421-26	TRANSISTOR	UN5216QRS		
Q702	8-729-230-60	TRANSISTOR	2SA1586-YG		
Q703	8-729-230-60	TRANSISTOR	2SA1586-YG		
Q704	8-729-230-60	TRANSISTOR	2SA1586-YG		
Q705	8-729-602-21	TRANSISTOR	2SC4154-F		
		< RESISTOR >			
R101	1-216-841-11	METAL CHIP	47K	5%	1/16W
R102	1-216-841-11	METAL CHIP	47K	5%	1/16W
R103	1-216-855-11	METAL CHIP	680K	5%	1/16W
R104	1-216-835-11	METAL CHIP	15K	5%	1/16W
R105	1-216-835-11	METAL CHIP	15K	5%	1/16W
R106	1-216-820-11	METAL CHIP	820	5%	1/16W
R107	1-216-795-11	RES,CHIP	6.8	5%	1/16W (EXCEPT FR)
R107	1-216-807-11	METAL CHIP	68	5%	1/16W (FR)
R108	1-216-841-11	METAL CHIP	47K	5%	1/16W
R109	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R201	1-216-841-11	METAL CHIP	47K	5%	1/16W
R202	1-216-841-11	METAL CHIP	47K	5%	1/16W
R203	1-216-855-11	METAL CHIP	680K	5%	1/16W
R204	1-216-835-11	METAL CHIP	15K	5%	1/16W
R205	1-216-835-11	METAL CHIP	15K	5%	1/16W
R206	1-216-820-11	METAL CHIP	820	5%	1/16W
R207	1-216-795-11	RES,CHIP	6.8	5%	1/16W (EXCEPT FR)

Ref. No.	Part No.	Description			Remark
R207	1-216-807-11	METAL CHIP	68	5%	1/16W (FR)
R208	1-216-841-11	METAL CHIP	47K	5%	1/16W
R209	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R301	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R302	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R303	1-216-833-11	METAL CHIP	10K	5%	1/16W
R304	1-216-843-11	METAL CHIP	68K	5%	1/16W
R305	1-216-851-11	METAL CHIP	330K	5%	1/16W
R306	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R307	1-216-089-00	RES,CHIP	47K	5%	1/10W (EXCEPT EX402)
R309	1-216-819-11	METAL CHIP	680	5%	1/16W
R313	1-216-841-11	METAL CHIP	47K	5%	1/16W
R330	1-216-821-11	METAL CHIP	1K	5%	1/16W
R351	1-218-729-11	METAL CHIP	36K	0.50%	1/16W (EXCEPT EX402)
R352	1-216-797-11	METAL CHIP	10	5%	1/16W (EXCEPT EX402)
R601	1-216-809-11	METAL CHIP	100	5%	1/16W
R602	1-216-845-11	METAL CHIP	100K	5%	1/16W
R603	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R604	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R605	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R606	1-216-817-11	METAL CHIP	470	5%	1/16W
R607	1-216-817-11	METAL CHIP	470	5%	1/16W
R608	1-216-817-11	METAL CHIP	470	5%	1/16W
R609	1-216-821-11	METAL CHIP	1K	5%	1/16W
R610	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R611	1-216-821-11	METAL CHIP	1K	5%	1/16W
R701	1-216-817-11	METAL CHIP	470	5%	1/16W
R702	1-216-851-11	METAL CHIP	330K	5%	1/16W
R703	1-216-853-11	METAL CHIP	470K	5%	1/16W
R705	1-218-870-11	RES,CHIP	9.1K	0.50%	1/16W
R706	1-216-841-11	METAL CHIP	47K	5%	1/16W
R708	1-216-845-11	METAL CHIP	100K	5%	1/16W
R711	1-218-836-11	RES,CHIP	360	0.50%	1/16W
R715	1-216-841-11	METAL CHIP	47K	5%	1/16W
R716	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R717	1-218-836-11	RES,CHIP	360	0.50%	1/16W
R718	1-216-845-11	METAL CHIP	100K	5%	1/16W
R719	1-216-833-11	METAL CHIP	10K	5%	1/16W
R720	1-216-845-11	METAL CHIP	100K	5%	1/16W
R721	1-216-845-11	METAL CHIP	100K	5%	1/16W
		< NETWORK RESISTOR >			
RB701	1-233-810-21	RES, NETWORK	100K	(3216)	
		< VARIABLE RESISTOR >			
RV301	1-225-544-11	RES, VAR, CARBON	10K/10K (VOL)		
RV601	1-238-663-11	RES, ADJ, CARBON	4.7K (TAPE SPEED)		

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S301	1-771-091-21	SWITCH, PUSH (1 KEY) (OPEN DET)	
S303	1-572-922-11	SWITCH, SLIDE (TAPE)	
S304	1-572-922-11	SWITCH, SLIDE (AVLS)	
S601	1-692-370-11	SWITCH, SLIDE (MD CONTROL)	
S701	1-572-922-11	SWITCH, SLIDE (HOLD)	
		< THERMISTOR (POSITIVE) >	
TH601	1-803-124-21	THERMISTOR, POSITIVE 4.7K	
		< VIBRATOR >	
X701	1-527-532-51	OSCILLATOR, CERAMIC (400kHz)	
**********			
		MISCELLANEOUS	
		**********	
3	1-667-927-11	FLEXIBLE (MEGA BASS) BOARD	
HP901	1-500-516-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-763-073-11	MOTOR	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-505-535-21	HEADPHONE (WITH REMOTE CONTROL) (MDR-WME652)	(EX406)
	3-020-998-01	CLIP, BELT	
	3-861-493-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, GERMAN,SPANISH)	(EXCEPT E)
	3-861-493-21	MANUAL, INSTRUCTION (DUTCH,SWEDISH, ITALIAN,PORTUGUESE)	(AEP)
	3-861-493-31	MANUAL, INSTRUCTION (HUNGARIAN,POLISH, RUSSIAN,BULGARIAN)	(EE)
	3-861-493-41	MANUAL, INSTRUCTION (TURKISH,GREEK, CZECH,FINNISH)	(AEP,EE)
	3-861-493-51	MANUAL, INSTRUCTION (ENGLISH,CHINESE, KOREAN)	(E)
	3-861-493-61	MANUAL, INSTRUCTION (ENGLISH,CHINESE, KOREAN)	(E)
	8-953-187-90	HEADPHONE MDR-ED136//K SET	(EXCEPT EX406)

9-923-324-11

Sony Corporation
Personal A&V Products Company

98B0468-1
Printed in Japan ©1998. 2
Published by Quality Engineering Dept. (Shibaura)